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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

PERSINO, R

ART UNIT

PAPER NUMBER

2681

DATE MAILED:

06/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/317,480

Inventor(s)

PEELE

Examiner
Raymond B. Persino

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2681



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 26, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-20 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,047,186 A) in view of Benveniste (US 5,809,423 A).

Regarding claim 1, Yu et al. discloses a method for allocating channels in a cellular communication system having a plurality of cells comprising: a. dividing the cell into a plurality of sectors (column 4 line 63 to column 5 line 6); b. subdividing channels allocated to the cell into frequency subgroups (column 4 line 63 to column 5 line 31); c. assigning the frequency subgroups to respective sectors in the cell (column 4 line 63 to column 5 line 31). However, Yu et al. does not disclose d. allocating channels within each sector to users in the corresponding sector; and e. when the number of channels allocated in a first sector of the cell reaches a predetermined threshold, reassigning an unused channel from a second sector in the cell to the first sector. Benveniste discloses d. allocating channels within each sector to users in the corresponding sector (base stations serving cells communicate to users via radio links (column 1 lines 16 to 20); and e. when the number of channels allocated in a first sector of the cell reaches a predetermined

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threshold, reassigning an unused channel from a second sector in the cell to the first sector (cell checks if there are any free allocated channels within the cell or sector) (column 3 lines 12 to 19, column 9 lines 31 to 44). It would have been obvious to combine the teachings of Yu et al. and Beveniste. Combining the teachings of Yu et al. and Beveniste would provide a method in which channels can be allocated in an efficient matter maximizing traffic capacity.

Regarding claim 2, Yu et al. in view of Benveniste disclose all of the limitations as set forth in claim 1. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the original sector (column 9 lines 55 to 67).

3. Claims 3,6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,047,186 A) in view of Benveniste (US 5,809,423 A) in further view of Borst et al. (US 6,119,011 A).

Regarding claim 3, Yu et al. in view of Benveniste disclose all of the limitations as set forth in claim 1. Borst et al. discloses determining whether the unused channel in the second cell is in use in another co-channel cell (busy channel table) in the network before the unused channel is reassigned to the first sector (column 6 lines 57 to 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yu et al. in view of Beveniste, with the teachings of Borst et al. Combining the teachings of Yu et al. in view of Beveniste, and the teachings of Borst et al. would determine whether a unused channel in any cell/sector which could be beneficial to minimize channel interference.

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Regarding claim 6, Yu et al. discloses a method for allocating channels in a cellular communication system having a plurality of cells comprising: a. dividing the cell into a plurality of sectors (column 4 line 63 to column 5 line 6); b. subdividing channels allocated to the cell into frequency subgroups (column 4 line 63 to column 5 line 31); c. assigning the frequency subgroups to respective sectors in the cell (column 4 line 63 to column 5 line 31); (g) reassigning the unused channel from the second sector in the cell to the first sector in the cell if the unused channel is not currently in use in the co-channel cell (column 6 lines 57 to 65). However, Yu et al. does not disclose d. allocating channels within each sector to users in the corresponding sector; and e. when the number of channels allocated in a first sector of the cell reaches a predetermined threshold, determining whether unused channels are available in a second sector of the cell; and (f) if an unused channel is found in the second sector, determining whether the unused channel is currently in use in another co-channel cell in the network. Benveniste discloses d. allocating channels within each sector to users in the corresponding sector (base stations serving cells communicate to users via radio links (column 1 lines 16 to 20); and e. when the number of channels allocated in a first sector of the cell reaches a predetermined threshold, reassigning an unused channel from a second sector in the cell to the first sector (cell checks if there are any free allocated channels within the cell or sector) (column 3 lines 12 to 19, column 9 lines 31 to 44). However, Benveniste does not disclose (f) if an unused channel is found in the second sector, determining whether the unused channel is currently in use in another co-channel cell in the network. Borst et al. discloses (f) if an unused channel is found in the second sector, determining

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whether the unused channel is currently in use in another co-channel cell in the network (column 6 lines 57 to 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yu et al. in view of Benveniste, with the teachings of Borst et al. Combining the teachings of Yu et al. in view of Benveniste, and the teachings of Borst et al. would determine whether a unused channel in any cell/sector which could be beneficial to minimize channel interference.

Regarding claim 7, Yu et al., in view of Benveniste, in further view of Borst et al. disclose all of the limitations as set forth in claim 1. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the original sector (column 9 lines 55 to 67).

4. Claims 4,5,8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,047,186 A) in view of Benveniste (US 5,809,423 A) in view of Borst et al. (US 6,119,011 A) in further view of Przelomiec (US 5,960,351 A).

Regarding claim 4, Yu et al. in view of Benveniste in further view of Borst et al. disclose all of the limitations as set forth in claim 3. However, Yu et al. in view of Benveniste in further view of Borst et al. do not disclose further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used. Przelomiec discloses further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used (column 8 lines 12 to 61). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to combine the teachings of Yu et al. in view of Beveniste, in further view of Borst et al. with the teachings of Przelomiec. Combining the teachings of Yu et al. in view of Beveniste, in further view of Borst et al. and the teachings of Przelomiec would indicate the last channel that should be used which would reduce potential interference problems.

Regarding claim 5, Yu et al. in view of Benveniste in view of Borst et al., in further view of Przelomiec disclose all of the limitations as set forth in claim 3. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the co-channel cell (column 9 lines 55 to 67).

Regarding claim 8, Yu et al., in view of Benveniste, in further view of Borst et al., disclose all of the limitations as set forth in claim 6. However, Yu et al. in view of Benveniste in further view of Borst et al. do not disclose further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used. Przelomiec discloses further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used (column 8 lines 12 to 61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yu et al. in view of Beveniste, in further view of Borst et al. with the teachings of Przelomiec. Combining the teachings of Yu et al. in view of Beveniste, in further view of Borst et al. and the teachings of Przelomiec would indicate the last channel that should be used which would reduce potential interference problems.

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Regarding claim 9, Yu et al. in view of Benveniste in view of Borst et al., in further view of Przelomiec disclose all of the limitations as set forth in claim 8. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the original sector (column 9 lines 55 to 67).

5. Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in further view of Lea (US 5,586,170 A).

Regarding claim 21, Komara discloses a method for allocating channels in a sectored cell of a cellular communication system having a plurality of cells comprising: a. subdividing the channels allocated to the cell into frequency subgroups; b. assigning the frequency subgroups to respective sectors in the cell; c. providing a single transceiver array having a plurality of transceivers corresponding to the channels allocated to the cell; d. connecting the transceivers corresponding to each frequency subgroup to an antenna in the sector of the cell to which the subgroup has been assigned; e. allocating channels in each sector to users in that sector cell (column 1 line 18 to column 2 line 5); However, Komara does not disclose f. determining the loading of each sector of the cell; g. when the loading of the first sector reaches a predetermined threshold, reassigning an unused channel from a second sector to the first sector; h. disconnecting the transceiver corresponding to the reassigned channel from the second sector and connecting it to said first sector. Reed discloses f. determining the loading of each sector of the cell; g. when the loading of the first sector reaches a predetermined threshold, reassigning an unused channel from a second sector to the first sector (column 3 lines 24 to 61). However, Reed does not

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disclose h. disconnecting the transceiver corresponding to the reassigned channel from the second sector and connecting it to said first sector. Lea discloses h. disconnecting the transceiver corresponding to the reassigned channel from the second sector and connecting it to said first sector (column 2 line 41 to column 3 line 29). It would have been obvious to combine the teachings of Komara, Reed, and Lea. Combining these teachings would provide for an efficient way to manage the use of primary and redundant transceivers increasing the capacity of the system.

Regarding claim 22, Komara, in view of Reed, in further view of Lea disclose all of the limitations as set forth in claim 21. Komara further discloses wherein the step of connecting and disconnecting the transceiver is accomplished by means of a switch (16) (column 4 lines 17 to 19).

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in view of Lea (US 5,586,170 A) in further view of Benveniste (US 5,809,423 A).

Regarding claim 23, Komara, in view of Reed, in further view of Lea disclose all of the limitations as set forth in claim 21. However, Komara, in view of Reed, in further view of Lea does not disclose further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the original sector. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the original sector (column 9 lines 55 to 67). It would have been obvious to combine the teachings of Komara, Reed, Lea, and

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Benveniste. Combining these teachings would provide for an efficient way to increase the capacity of the system.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in view of Lea (US 5,586,170 A) in further view of Borst et al. (US 6,119,011 A).

Regarding claim 24, Komara, in view of Reed, in further view of Lea disclose all of the limitations as set forth in claim 21. However, Komara, in view of Reed, in further view of Lea does not disclose determining whether the unused channel in the second cell is in use in another co-channel cell (busy channel table) in the network before the unused channel is reassigned to the first sector. Borst et al. discloses determining whether the unused channel in the second cell is in use in another co-channel cell (busy channel table) in the network before the unused channel is reassigned to the first sector (column 6 lines 57 to 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komara, Reed, Lea, and Borst et al. Combining the teachings of Komara, Reed, Lea, and Borst et al. would determine whether a unused channel in any cell/sector which could be beneficial to minimize channel interference.

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in view of Lea (US 5,586,170 A) in view of Borst et al. (US 6,119,011 A) in further view of Przelomiec (US 5,960,351A).

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Regarding claim 25, Komara, in view of Reed, in view of Lea, in further view of Borst et al. disclose all of the limitations as set forth in claim 24. However, Komara, in view of Reed, in view of Lea, in further view of Borst et al. do not disclose further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used. Przelomiec discloses further including the step of placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used (column 8 lines 12 to 61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings Komara, Reed, Lea, Borst et al. and Przelomiec. Combining the teachings Komara, Reed, Lea, Borst et al. and Przelomiec would indicate the last channel that should be used which would reduce potential interference problems.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in view of Lea (US 5,586,170 A) in view of Borst et al. (US 6,119,011 A) in further view of Przelomiec (US 5,960,351 A) in further view of Benveniste (US 5,809,423 A).

Regarding claim 26, Komara, in view of Reed, in view of Lea, in view of Borst et al., in further view of Przelomiec disclose all of the limitations as set forth in claim 21. However, Komara, in view of Reed, in view of Lea, in view of Borst et al., in further view of Przelomiec do not disclose further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the co-channel cell. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its

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original sector when the reassigned channel is demanded in the co-channel cell (column 9 lines 55 to 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komara, Reed, Lea, Borst et al. Przelomiec and Benveniste. Combining the teachings of Komara, Reed, Lea, Borst et al. Przelomiec and Benveniste would provide for an efficient way to manage the cell use and increasing the capacity of the system.

10. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A).

Regarding claim 27, Komara discloses a base station (10) for a sectored cell in a cellular communication system comprising: a. a plurality of antennas for broadcasting and receiving signals in respective sectors of the cell; b. a transceiver array including a plurality of transceivers for broadcasting and receiving signals on the channels allocated to the cell (column 1 line 18 to column 2 line 5); c. a switching circuit connecting the transceiver array to the antenna in each sector of the cell for switching the transceiver inputs and outputs to respective antennas; a base station controller operatively connected to the transceiver array and switching circuit for (column 4 lines 14 to 19): However, Komara does not disclose i) monitoring channel utilization in each cell; ii) switching a channel from the first sector in a cell to a second sector in the same cell when the loading in the first sector reaches a predetermined threshold. Reed discloses i) monitoring channel utilization in each cell; ii) switching a channel from the first sector in a cell to a second sector in the same cell when the loading in the first sector reaches a predetermined threshold (column 3 lines 24 to 61). It would have been obvious to combine the teachings of

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Komara and Reed. Combining these teachings would provide for an efficient way to increase the capacity of the system.

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A), in further view of Borst et al. (US 6,119,011 A).

Regarding claim 28, Komara in view of Reed disclose all of the limitations as set forth in claim 27. However, Komara, in view of Reed do not disclose further including determining means for determining whether the unused channel in the first sector is in use in another co-channel cell in the network before the unused channel is reassigned to the second sector. Borst et al. discloses (f) if an unused channel is found in the second sector, determining whether the unused channel is currently in use in another co-channel cell in the network (column 6 lines 57 to 65).

12. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A), in view of Borst et al., (US 6,119,011 A), in further view of Przelomiec (US 5,960,351 A).

Regarding claim 29, Komara, in view of Reed, in further view of Borst et al. disclose all of the limitations as set forth in claim 28. However, Komara, in view of Reed, in further view of Lea do not disclose discloses further including means for placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used. Przelomiec discloses further including means for placing the reassigned channel on a hold back list in the co-channel cell designating channels that should be among the last used (column 8 lines 12

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to 61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komara, Reed, and Przelomiec. Combining the teachings Komara, Reed, and Przelomiec would provide a means to indicate the last channel that should be used which would reduce potential interference problems.

13. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komara (US 6,161,024 A) in view of Reed (US 5,649,293 A) in further view of Benveniste (US 5,809,423 A).

Regarding claim 30, Komara in view of Reed disclose all of the limitations as set forth in claim 27. However, Komara in view of Reed do not disclose further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the co-channel cell. Benveniste further discloses further including the step of further reassigning the reassigned channel back to its original sector when the reassigned channel is demanded in the co-channel cell (column 9 lines 55 to 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Komara, Reed, and Benveniste. Combining these teachings would provide for an efficient way to manage the cell use and increasing the capacity of the system.

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Allowable Subject Matter

14. Claims 10-20 are allowed.

15. The following is a statement of reasons for the indication of allowable subject matter:

The examiner found the applicant's arguments filed 3/36/2001, regarding claims 10 and 16, persuasive. Claim 10 comprises a unique combination of elements which is neither taught nor suggested by the prior art.

Response to Arguments

16. Applicant's arguments filed 3/36/2001, regarding claims 1, 6, 21 and 27, have been fully considered but they are not persuasive.

Regarding claims 1 and 6, the applicant's argues three main points. First, it is argues that the combination is not obvious for there is no motivation to combine the references. Second, it is argued that the references are not combinable for Benbeniste's teaching is in a specific context and that Yu inherently teaches away from. Lastly, it is argued even if Yu and Benbeniste are combined, the combination does not teach the applicant's invention.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

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USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Yu establishes that cells are broken into sectors and that channels groups are assigned to each cell. While Yu teaches more than this concept the examiner only relies on that part of Yu's teaching. Benbeniste teaches the concept of borrowing channels from one fixed region to be used in another (i.e. the relationship of sectors within a cell is analogous to cells within a network) in the context of a cellular network. Once again, while Benbeniste teaches more than this concept the examiner only relies on that part of Yu's teaching. One of ordinary skill in the art would recognize that Benbeniste's teaching enhances Yu's teaching with the combination yielding the benefit of efficient channels allocation with maximized traffic capacity.

In response to applicant's argument that Benbeniste relied upon teaching is in a specific context and that Yu's teaching teaches away from that specific context, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art, for this see the paragraph immediately above. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that the references when combined fail to render the claim as obvious, the examiner disagrees with the applicant's specific interpretation of Benbeniste. The examiner understands Benbeniste to teach the concept of borrowing channels from one fixed region to be used in another. While Benbeniste uses this specifically for cells within a network,

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one of ordinary skill in the art would either recognize the broader teaching (that used relied upon by the examiner) or understand that it can be analogously utilized in the sector/cell relationship. Thus, while Benbeniste may or may not teach the limitation it is at least suggested to the degree that one of ordinary skill in the art would recognize its application in the sector/cell relationship, especially if the person of ordinary skill in the art first considered the benefit of using sectorized cells as taught by Yu.

Regarding claims 21 and 27, the applicant's argument is based on Komora's failure to teach a limitation in claim 10, the limitation being drawn to the "redundant transceivers for channels allocated to other sectors in the cell". However, the examiner does not find this persuasive for the limitation that Komora's fails to teach in claim 10 is not found in claims 21 or 27.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Meyer et al (US 6,236,866 B1) discloses a similar system to that of the applicant's invention. It differs in that instead of reassigning channels with fixed sector boundaries it adjusts the boundary of the sector to compensate for an overload situation.

Meidan (US 5,276,907 A) discloses a method and apparatus for dynamic distribution of channel load in a sectorized cellular system.

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18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Persino whose telephone number is (703) 308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost, can be reached on (703) 305-4778. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

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Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231


or faxed to:

(703) 872-9314, (for formal communications intended for entry please label "EXPEDITED PROCEDURE," and informal or draft communications, please label "PROPOSED," or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Ray Persino *RP*

May 31, 2001


TRACY LEGREE
PRIMARY EXAMINER